

In Confidence

Office of the Minister for Land Information

Cabinet Government Administration and Expenditure Review Committee

Modernising Landonline – Progress Update March 2021

Proposal

1. This paper updates Cabinet on progress Land Information New Zealand (LINZ) has made modernising Landonline, New Zealand's central register of survey and title information.

Executive Summary

2. In October 2018 Cabinet approved a Programme Business Case for the modernisation of the Landonline technology system used by surveyors and conveyancers to conduct all land transactions.
3. The programme is expected to cost \$128.2 million and take five years to complete. LINZ is managing the programme as an in-house build using primarily NZ ICT resources. Work began on 1 April 2019 after a mobilisation phase.
4. As at 28 February 2021, the programme:
 - 4.1. was operating within budget and overall status was rated Green by the programme's governance Board
 - 4.2. had completed planned development of four Search and Notices products that have introduced significant improvements to how the public and registered customers interact with Landonline
 - 4.3. was making good progress on the rebuild of core Landonline IT systems
 - 4.4. had managed delivery and recruitment delays related to the 2020 COVID-19 lockdowns.
5. An independent Gateway review in May 2020 rated LINZ readiness to proceed with the core system rebuild as Green/Amber – the second highest possible Gateway rating reflecting confidence that the programme was well placed to mobilise for the rebuild provided constant attention was paid to risks.
6. Positive feedback is being received from stakeholders about the programme's customer-centric Agile delivery process, which involves Landonline users as co-designers of new products and system enhancements.
7. LINZ expects to next seek financial approvals from joint Ministers in August 2021 (including authority to draw down Crown contingency funding available to the programme). Financial approvals to date (April 2019 and August 2020) will maintain activity to December 2021. Reforecast whole-of-life costs confirmed the programme

was on track for being delivered within the original cost estimates provided to Cabinet in 2018.

Background

- 8.** In October 2018 Cabinet approved a Programme Business Case for modernising Landonline [GOV-MIN-0078 refers]. Work began on the Survey and Title Enhancement Programme (STEP) on 1 April 2019. The current Landonline system is expected to be retired in 2024.
- 9.** Confidence in property rights and accurate land information are critical for New Zealand's economy and trusted reputation nationally and internationally.
- 10.** Landonline is the technology system that:
 - 10.1.** provides New Zealand's guaranteed record of land ownership provided by the Crown under the Land Transfer Act 2017.
 - 10.2.** ensures all buyers and sellers of property know the physical extent of their property, can legally register ownership in land, and use property as security for investing
 - 10.3.** is used by all land surveyors and conveyancers to conduct land transactions including the approval of subdivision plans and registration of ownership and easement rights.
- 11.** Landonline, introduced between 1999 and 2002, was a world-leading first generation digital transformation that automated paper-based processes (87 percent of title transactions are now automated) and significantly improved the efficiency of land transaction services LINZ provides. However, the Landonline system is now reaching the end of its life, is expensive to maintain and cannot respond quickly to changing requirements – for example implementing legislative changes or keeping up with the modern day-to-day practices of surveyors, conveyancing professionals and territorial authorities. Ensuring the platform's security is increasingly difficult, and the core software language is not recommended for use in new development. Users need particular software to access Landonline and it only works on certain identified computers and operating systems.
- 12.** STEP's objectives are to deliver a flexible modular technology survey and title platform that will:
 - 12.1.** significantly improve the quality and range of survey and title services LINZ provides to its customers
 - 12.2.** improve processing across the wider property system by providing automatic system to system links that deliver the technical ability to join up processes. For example, the Maori Land Court (MLC) maintains records of Maori land in New Zealand and when the Court makes an order concerning ownership or other transactions it is required to lodge the order with LINZ for recording under the Land Transfer System (Maori Freehold Record of Title). STEP will provide potential for greater integration with the MLC's Māori Land Information System by enabling direct transfer of data and more streamlined processing of

transactions affecting Māori Land. LINZ and the Maori Land Court are working together to ensure digital connectiveness between their respective systems is fully enabled.

12.3. make high quality property information more accessible to the public and decisionmakers

12.4. remove risks to Landonline and the Crown arising from the aging IT platform that could impact the security and integrity of the system.

13. The Programme Business Case envisaged STEP as both a technology rebuild and key driver of organisational change that will see LINZ take a flexible, customer-centric approach to the work it does for New Zealand. This would:

13.1. bring LINZ closer to customers, stakeholders and sectors to co-create solutions based on a deeper understanding of their needs

13.2. build LINZ's capability to work flexibly and apply Agile methodologies

13.3. ensure LINZ has strong and secure technology foundations that are continually modernised to meet future needs without again having to rebuild core systems.

14. STEP's \$128.2 million capital cost is funded from LINZ capital reserves of \$32.9 million and a repayable Crown capital injection of \$95.4 million drawn from \$103 million contingency funding allocated to the programme in Budget 2018. The operating costs of providing survey and title services through Landonline are recovered from fees charged to users. Programme costs were reforecast in May 2020. This confirmed that the programme was on track for being delivered within the original cost estimates provided to Cabinet in 2018.

15. Cabinet noted progress in November 2019 [GOV-19-MIN-0058] and invited the Minister for Land Information to provide a further update in March 2021 (this paper).

Progress to February 2021

16. As at 28 February 2021, the programme is on track and within budget for delivery. Overall programme status was rated Green by the STEP governance board, having been shifted from Amber to Green status at the February 2021 board meeting. Since November 2019 the programme has released the four planned Search and Notices products to customers and has begun the rebuild of core IT systems.

Search and Notices products

17. The Search and Notices products already released have introduced significant improvements to how the public and registered customers interact with Landonline. These products (described below), two of which are extensions to current Landonline services, were co-designed with customers then piloted and released. Customer feedback has been positive. The focus now is on expanding uptake of the products.

Registered Search (released in March 2020)	A web-based search application allowing registered Landonline customers to more easily search for and purchase products such as a title record from any place or device (20 percent of customers by volume now using the service).
Public land record search (released 1 February 2021)	A related web-based service offering easier and cheaper public access to property information, e.g. a land title or survey plan. In its first month use of LINZ's manual land record search service reduced by more than 90% while overall search activity by the public has almost doubled,
Notice of change of ownership and occupancy	A new service that provides automated notifications to territorial authorities when a property transaction is completed, enabling accurate updating of rating information. The service was piloted in Tauranga, and has been expanded to Wellington, Marlborough and Bay of Plenty. LINZ aims to have all territorial authorities on board by end 2021 (subject to council readiness).
Notice to mortgagee	Sends automatic notifications to participating financial institutions when a mortgage is registered on a title (in use by three of eight institutions, with full uptake aimed for by August 2021).

Rebuild of core IT systems

- 18.** The rebuild of Landonline's core IT systems began in August 2020 after a planning and capability building stage. LINZ's readiness to proceed with rebuild was endorsed in May 2020 by an independent Gateway review rating of Green/Amber. This is the second-highest possible Gateway rating and reflected the review team's confidence that the programme was well placed to mobilise for the rebuild provided constant attention was paid to risks. The Gateway review team noted the development of strong customer-centric Agile culture and stakeholder engagement processes as exemplars of good practice.
- 19.** The rebuild is being completed in approximately 40 initiatives. Seven initiatives are in progress - two are nearing completion, and another five are expected to be finished by December 2021. These initiatives are designed to provide foundations for the remaining approximately 33 initiatives needed to complete the rebuild. Expected outputs of the seven initiatives under way are described below.

Titles initiative (1)	Will enable 68% of all automatically registered title transactions to be processed in new Landonline (300,000 a year). More complex title transactions will be added subsequently.
Survey initiatives (2)	Enable 72% of all surveys by volume to be captured in new Landonline. 100% capture of all surveys will be completed in subsequent initiatives. Foundational work for implementing a digital survey plan: better understand user impacts, STEP dependencies, legislation changes, policy work and timing.
Common Services initiatives (3)	Customer services to support later titles and survey initiatives, including a multipurpose dashboard for managing user/firm access to and interactions with Landonline.

	<p>Foundational work to better understand benefits, feasibility, work required and costs of implementing a Business Rules Engine.</p> <p>Build a centralised repository of business rules that will ensure survey plans submitted to new Landonline comply with regulatory standards.</p>
Database initiative (1)	Migrating Landonline database to a modern platform hosted in New Zealand. Reduces technology risks, enables futureproofing by moving database to a modern and flexible technology.

Delivery

20. The release of search and notices products (paragraph 17) over the past year has delivered tangible value for LINZ customers who have responded positively to both their usability and opportunity to be involved in product development.
21. The new web-based property search functionality (for both registered Landonline users and the public) has been well received and is improving access to property information. Public use of the new public land record search service launched on 1 February 2021 has exceeded expectations. Similarly, conveyancers, territorial authorities and financial institutions have responded positively to the new automated property transaction notification services that have helped streamline conveyancing processes and ensure more accurate data is provided to councils for rating purposes.
22. The core system rebuild (paragraphs 18-19) has begun modernising how LINZ delivers land transaction services to its customers.
23. LINZ measures value delivery by assigning value points to each STEP initiative based on its contribution to the STEP benefits (identified in the business case). The value points delivered by the end of January 2021 were 17.5 percent of total benefits compared to the proportion of capital budget spent of 21 percent. This variance between cost/effort expended and value delivered is not unusual at the earlier stages of a programme, and has narrowed through 2020. Peaks and troughs in value delivery can continue to be expected, however LINZ anticipates this variance to continue narrowing over time. The current position reflects the programme was slightly behind on delivery due to the cumulative impacts of COVID-19 delays to recruitment and the programme's focus on resource scaling.

Benefits

24. LINZ is monitoring and tracking progress in realising the estimated \$119 – \$143 million in monetised benefits from the programme over its 12 year life. LINZ tracks the release of new capabilities/services, and gathers metrics on user uptake and evidence about efficiencies delivered to users. Economic modelling commissioned for the programme will provide an estimate of the cost of maintaining New Zealand's property system as a reference point for assessing the economic efficiencies STEP will enable.

Stakeholder engagement

25. Feedback is obtained from stakeholders throughout the Agile delivery process, which involves Landonline users as co-designers of new products and system enhancements. This occurs through day-to-day engagement as developments are designed, piloted and readied for release, and mechanisms such as 12-weekly progress demonstrations. The programme team also formally engages with the following groups:

25.1. The Land Titles Committee: established by the Property Law Section of the New Zealand Law Society, reviews and provides feedback on proposed new services and system enhancements for solicitors/conveyancers

25.2. The Survey Working Group: established by Survey and Spatial NZ provides feedback and advice on proposed enhancements for cadastral surveyors

25.3. Territorial Authority Focus Group: works with representatives from urban and rural territorial authorities in the areas of rating valuation, property data, and subdivision approvals

25.4. LINZ Property System Stakeholder Forum: a forum that allows LINZ to work with key stakeholder groups with a stake in delivery of property information to industry and the public.

STEP Workforce

26. STEP is being delivered as an in-house build within LINZ using New Zealand ICT expertise. LINZ has committed to building and developing internal capability, and this is reflected in the higher proportion of permanent or fixed term LINZ employees engaged on the programme than originally envisaged.

27. Total contract and permanent staff working in development teams and associated change and customer engagement roles were increased in the last quarter of 2020 as resources were scaled for the core system rebuild. At 31 January 2021 the programme employed 119 people – 72 permanent LINZ staff, 11 fixed term LINZ staff and 36 specialist contract resources

28. The programme team adapted well to flexible working arrangements that were first prompted by the 2020 Covid-19 lockdown. This experience is being applied post-lockdown as the programme has scaled resources, allowing greater employee flexibility and reduced the need for additional office accommodation.

Decision on cloud storage of the Landonline database

29. In December 2019 LINZ made the decision to host Landonline's nationally significant database of property information in New Zealand rather than in an overseas cloud service. Although there were no legal, privacy or security impediments to offshore database hosting, due diligence highlighted further work was needed on data sovereignty and social and cultural licence. LINZ is actively involved with the Government Chief Data Steward's work on Māori data stewardship. The efficiency and financial impacts of hosting in New Zealand are not expected to be material to the programme overall. In the meantime LINZ is considering the viability of using international cloud service providers' New Zealand-based services.

30. An offshore cloud service in Australia is being used for work on test and development databases. These databases do not contain data that raises privacy or security concerns.

Governance

31. In April 2020 STEP governance was transitioned from an independently chaired Board (two independent members and five LINZ deputy chief executives) to a direct governance Board comprised of the LINZ Executive Leadership Team (ELT) and Chief Financial Officer. This has strengthened the ELT's strategic role and ensures STEP's integration with LINZ systems and processes. The high level of executive engagement was noted by the Gateway review team in May 2020.
32. As reported to Cabinet in November 2019, the programme was placed into red status in July 2019 to ensure sufficient resources were focused on business integration planning. Programme status was changed to Amber in December 2019 after progress was made on those issues.
33. The Board kept the programme at Amber throughout 2020 before changing the status to Green in February 2021. Amber status reflected the Board's focus on addressing several key challenges – delivery of business integration plans and preparations for the core system rebuild, building LINZ-wide Agile delivery capability and establishing a Business Transformation group. The Board was also focused on managing production delays and delays in recruitment for the core system rebuild caused by the COVID-19 lockdown. Both those issues have been managed and no long term impacts on programme delivery are expected.
34. Central Agencies (The Treasury, Department of Prime Minister and Cabinet, Te Kawa Mataaho), the Government Chief Digital Officer and Ministry for Business Innovation and Employment maintain oversight of the programme and are consulted at every major decision point. The programme's senior responsible owner is supported by a panel of experienced independent advisors.
35. The programme is complying with the assurance guidelines and requirements of the Government Chief Digital Officer for public sector IT programmes and independent Gateway reviews are undertaken at key delivery points. The next Gateway review will take place before the next planned request for capital funding which is likely to be August 2021 (see paragraph 39 below).

Consultation

36. The following agencies have been consulted on the contents of this paper: The Treasury, Office of the Government Chief Digital Officer and Ministry for Business Innovation and Employment. The Department of Prime Minister and Cabinet and Te Kawa Mataaho were informed.

Financial Implications

37. Approximately \$25 million had been spent by 31 January 2021. This is 21 percent of the programme's modelled cost of \$116 million. Work so far has been funded from

LINZ capital reserves and the programme has not yet had to draw on Crown capital funding.

Expenditure type (\$m)	Full programme		Spend to date (since Nov18)		20/21 year to date			20/21 Full Year		
	Approved funding (QRA 85)	Modelled cost (budget)	Actual	% of modelled cost	Actual	Budget	Var	Budget (Nov20)	Approved Drawdown	Var
Capital expenditure	128.2	116.2	26.4	23%	10.5	12.2	1.6	20.8	29.5	8.7
Operating expenditure	18.7	23.8	4.3	18%	2.1	2.8	0.7	6.0	4.5	-1.6

* STEP operating expenditure includes associated overhead allocated costs but excludes depreciation expenditure

38. Lower than forecast expenditure incurred by the programme is largely due to lower resource costs (which make up 90% of programme costs):

38.1. more LINZ staff employed on the programme than anticipated by the 2018 Programme Business Case

38.2. lower rates for both employees and contractors than budgeted

38.3. interruptions to recruiting due to COVID-19 and delayed appointment process.

39. The current financial approvals authorised by Joint Ministers under Cabinet delegated authority in April 2019 and August 2020 will maintain programme activity until 31 December 2021. LINZ expects to next seek financial approvals in August 2021 (including authority to draw on Crown contingency funding) for work beyond December 2021.

40. LINZ reforecast the whole-of-life costs of the programme as part of the August 2020 funding request. This exercise provided confidence that the programme can be delivered within the capital expenditure funding arrangements agreed by Cabinet in October 2018.

Approach to funding requests

41. In April 2020 joint Ministers agreed to vary the approach LINZ took to requesting capital funding drawdowns. The approach set out in the Programme Business Case involved funding requests approximately every 12 months supported by a comprehensive single stage business case for tranches of fixed deliverables.

42. Joint Ministers agreed LINZ needed flexibility to adapt and re-sequence work to optimise delivery instead of being bound by fixed deliverables and timeframes. This approach was more aligned with the Agile delivery approach the programme is using.

43. Joint Ministers further agreed that LINZ could request tranches of funding to maintain programme activity over specified periods. This would provide planning certainty and flexibility to adjust activity sequencing if necessary. To support this approach LINZ committed to providing Joint Ministers with detailed progress reporting (including financial performance and benefits realisation). These reports are provided at the completion of each 12-week delivery cycle.

Review of Survey and Title Fees

44. When approving the Programme Business Case in October 2018, Cabinet noted that the cost of the Landonline rebuild must be funded over ten years through fees charged to Landonline users. LINZ was directed to complete a survey and title fees review by early 2021. This work has been done and public consultation on fees is underway [DEV-21-SUB-0009 refers].

Legislative, regulatory, human rights, population or climate change implications.

45. This paper does not contain proposals with legislative implications or require inclusion of a regulatory impact analysis. Nor does it contain proposals with implications for human rights, populations or climate change policy.

Proactive Release

46. I propose to publish this Cabinet paper on the LINZ website, subject to redactions as appropriate under the Official Information Act 1982.

Recommendations

I recommend that the Government Administration and Expenditure Review Committee:

1. **Note** that the Landonline rebuild is within budget and on track for delivery.
2. **Note** that LINZ began the rebuild of core IT systems in August 2020 after completing detailed planning and building capacity.
3. **Note** that an independent Gateway review in May 2020 rated LINZ readiness to proceed with the core system rebuild as Green/Amber.
4. **Note** that the programme has developed and released four Search and Notices products introducing early improvements to how Landonline customers (including the public, territorial authorities and financial institutions) access LINZ property data.
5. **Note** that financial approvals from joint Ministers (Land Information, Finance, and Digital Economy and Communications) in April 2019 and August 2020 will maintain programme activity until December 2021.
6. **Note** that reforecast whole-of-life costs prepared for the August 2020 financial approval provided confidence that the programme can be delivered within cost estimates agreed by Cabinet in October 2018.
7. **Note** that LINZ expects to seek a further financial approval in August 2021 to fund activity beyond December 2021.
8. **Invite** the Minister for Land Information to update Cabinet in March 2022.

Authorised for lodgement
Hon Damien O'Connor
Minister for Land Information

Proactive Release